

## EXHIBIT A

**Memorandum of Agreement Between the**  
**United States Environmental Protection Agency,**  
**Ohio Environmental Protection Agency,**  
**And Ohio Power Company d/b/a American Electric Power**

**Introduction**

1. This is a cooperative Memorandum of Agreement (MOA) entered between the United States Environmental Protection Agency (USEPA), Ohio Environmental Protection Agency (Ohio EPA), and Ohio Power Company d/b/a American Electric Power (AEP/Ohio Power). Throughout this MOA, any reference to the "Parties" refers to USEPA, Ohio EPA, and AEP/Ohio Power.
2. AEP/Ohio Power owns and operates the General James M. Gavin Power Plant (the Gavin Power Plant), an electric generating station consisting of two units (Unit No. 1 and Unit No. 2) nominally rated at 1300 megawatts each, located in Gallia County, Ohio.
3. The Parties have a common goal through entry of this MOA to meet the standards applicable to Unit No. 1 and Unit No. 2 under the Clean Air Act and/or the approved Ohio SIP, including OAC Rule 3745-15-07, OAC Rule 3745-17-07(A), and OAC Rule 3745-17- 10, and to set forth a testing, monitoring, and reporting program and schedule.

**Obligations of the Parties**

4. AEP/Ohio Power agrees not to operate the selective catalytic reduction (SCR) system on Gavin Power Plant Unit No. 1 during 2002.
5. Two weeks prior to commencing operation of the SCR on Unit No. 2, AEP/Ohio Power agrees to complete installation of all equipment necessary to operate, maintain, and monitor magnesium hydroxide (MgOH) injection, water injection, and calcium hydroxide (CaOH) injections at Unit No. 2 to reduce sulfur trioxide (SO<sub>3</sub>) levels. At least two weeks prior to commencing operation of the SCR on Unit No. 2, AEP/Ohio Power agrees to submit a written report to USEPA and Ohio EPA identifying the range of MgOH, CaOH, and water injection rates to be utilized while operating the SCR system on Unit No. 2.
6. Two weeks prior to commencing operation of the SCR on Unit No. 2, AEP/Ohio Power agrees to acquire a stockpile of low sulfur coal at the Gavin Plant and maintain a stockpile during SCR operations in 2002. If AEP/Ohio Power utilizes low sulfur coal as an SO<sub>3</sub> mitigation measure during the ozone season in 2002, AEP/Ohio Power agrees to acquire and maintain a stockpile of low sulfur coal during the ozone season in 2003 and 2004. For purposes of this MOA, "low sulfur coal" is defined as less than 1.0% sulfur.

7. AEP/Ohio Power agrees to continue to evaluate alternative SO<sub>3</sub> mitigation strategies, including but not limited to the use of other sorbent additives, catalyst changes to reduce the SO<sub>3</sub> conversion rate, application of wet ESP technology and use of low sulfur coal. AEP agrees to submit a written report to USEPA and Ohio EPA discussing the feasibility of each such alternative not later than June 1, 2002.

8. If at any time the data collected by any of the Parties, including any independent consultants, demonstrate that emissions from the Units at the Gavin Plant during SCR operations do not meet the standards applicable to the Gavin Plant under the Clean Air Act and/or the approved Ohio State Implementation Plan (SIP), AEP/Ohio Power agrees to promptly notify USEPA and Ohio EPA and as expeditiously as possible implement corrective measures. AEP/Ohio Power agrees to: (1) promptly switch to low sulfur coal or implement any other equally effective short term measures; and (2) develop and submit a longer term corrective action plan for implementation of mitigation measures to assure the applicable standards are continuously maintained.

9. During each mass particulate emission test required by this MOA, AEP/Ohio Power agrees to retain an independent consultant to observe and record visible emission observations at Unit No. 2 throughout the duration of the stack test, unless weather conditions during stack testing prevent valid observations from being taken. The visible emission observations will be taken in accordance with USEPA Method 9, which specifies among other requirements that observations must be taken at the point of highest opacity in the plume.

10. During the 2002 ozone season, AEP/Ohio Power agrees to maintain records of the following parameters for Unit No. 2 on an hourly average basis: generation load (in gross megawatts (MW)), SCR operative status, injection rates for MgOH (in gallons per minute (gpm)), water (in gpm), and CaOH (in tons per hour (tph)), SO<sub>2</sub> inlet and outlet emission rate (lb/mmBtu), NO<sub>x</sub> emission rate (lb/mmBtu) and monitored opacity levels at the electrostatic precipitator (ESP) outlet. After evaluating the information collected during the prior ozone season, USEPA and/or Ohio EPA may require that similar records be maintained for one or both Gavin Units during the ozone seasons in 2003 and/or 2004, by providing notice of the continuation of this requirement to AEP/Ohio Power at least 60 days prior to May 1 each year.

#### Stack Testing

11. Within 14 days of commencing SCR operations in 2002, AEP/Ohio Power agrees to perform mass particulate matter (PM) and sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) stack testing on Unit No. 2 under representative operating conditions. AEP/Ohio Power agrees to perform the PM and H<sub>2</sub>SO<sub>4</sub> stack tests in accordance with the protocol approved by USEPA and Ohio EPA, using the methods prescribed in 40 CFR, Part 60, Appendix A, Methods 1 through 5, and the procedures specified in OAC § 3745-17-03(B)(9) for mass particulate emissions, and the controlled condensation method (CCM) for vapor phase concentrations of SO<sub>3</sub> measured as H<sub>2</sub>SO<sub>4</sub>, and any

adjustments to those methods or procedures necessary to account for the yaw angle in the Gavin stack and the nature of the stack gases. Three additional PM and H<sub>2</sub>SO<sub>4</sub> stack tests shall be conducted at varying injection rates during operation of the SCR in 2002. After evaluating the PM and H<sub>2</sub>SO<sub>4</sub> stack test data collected during 2002, USEPA and/or Ohio EPA may require that AEP conduct further PM and H<sub>2</sub>SO<sub>4</sub> stack tests during SCR operations in 2003 by providing notice to AEP/Ohio Power at least 60 days prior to May 1, 2003.

12. AEP/Ohio Power agrees to submit a proposed test protocol to USEPA and Ohio EPA by May 10, 2002.

13. USEPA and Ohio EPA agree to review the protocol within 15 days of receipt.

14. AEP/Ohio Power agrees to submit the results of all Unit No. 2 PM and H<sub>2</sub>SO<sub>4</sub> stack tests conducted during 2002, including the stack tests referred to in paragraph 11. For tests conducted after the effective date of this MOA, AEP/Ohio Power agrees to submit the test results to USEPA and Ohio EPA within 15 days of completion of each test. AEP/Ohio Power may request that the time for submission of test reports be extended if circumstances prevent submission of a complete report within 15 days of completion of a test.

#### Ambient Monitoring

15. AEP/Ohio Power agrees to submit an air monitoring plan for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> to USEPA and Ohio EPA for approval within 30 days of the effective date of this MOA. The SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> air monitoring plan will include at least the following information: name and contact information of the entity conducting the monitoring, the monitoring site locations, monitoring apparatus and equipment descriptions, sample durations, Standard Operating Procedures for field operations, chain-of-custody procedures, and Quality Assurance Procedures for field operations.

16. USEPA and Ohio EPA agree to review the air monitoring plan within 15 days of receipt.

17. Within 45 days after submitting its air monitoring plan to USEPA and Ohio EPA and for the remainder of the ozone season in 2002, AEP/Ohio Power agrees to conduct ambient air grab samples for H<sub>2</sub>SO<sub>4</sub> for one hour duration, four times per day, five days per week using NIOSH Method 7903, including a location where plume impaction is greatest based on visual observation of the plume.

18. Within 45 days after submitting its air monitoring plan to USEPA and Ohio EPA, AEP/Ohio Power agrees to install and continuously operate and maintain a SO<sub>2</sub> ambient air monitor at a site approved by USEPA and Ohio EPA. AEP/Ohio Power will operate the monitor at least through October 31, 2002. After evaluating the data collected by the ambient SO<sub>2</sub> monitor in 2002, USEPA and/or Ohio EPA may require

that ambient SO<sub>2</sub> monitoring be conducted during the ozone season in 2003 by providing notice to AEP/Ohio Power at least 60 days prior to May 1, 2003.

19. AEP/Ohio Power agrees to utilize approved Federal Reference or Federal Equivalent Monitors for sulfur dioxide monitoring. All activities associated with sulfur dioxide measurements will be consistent with the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II.

20. Data logging systems or the primary data recording device must record and save sulfur dioxide averages at the following frequencies: 5-minute average, hourly average, 3- hour average, and 24-hour average sulfur dioxide readings.

#### Reporting

21. AEP/Ohio Power agrees to submit on a weekly basis reports including all data required to be maintained in paragraph 20 above. Weekly reports shall be submitted on Wednesday of each week for the prior Sunday through Saturday period.

22. AEP/Ohio Power agrees to submit twice monthly written reports including all data required to be maintained in paragraphs 9, 10, and 17, above. Such reports will cover the 1st through the 15th day of each calendar month, and the 16th through the remainder of each calendar month during the 2002 ozone season. AEP/Ohio Power agrees to submit these reports within 7 days of the end of each reporting period. If the requirements of paragraph 10 are extended at the request of USEPA and/or Ohio EPA, the reporting requirements of this paragraph will also be extended.

#### General Provisions

23. This MOA does not affect AEP/Ohio Power's responsibility to comply with other local, state, and federal laws and regulations.

24. This MOA does not restrict USEPA and Ohio EPA's ability to enforce the Ohio SIP, or any section of the Act, including Section 303 of the Act, 42 U.S.C. § 7603.

25. The terms of this MOA are binding on the Parties, their assignees and successors. AEP/Ohio Power must give notice of the MOA to any successors in interest, prior to transferring ownership, and must simultaneously verify to USEPA and Ohio EPA at the below address that AEP/Ohio Power has given the notice.

26. This MOA is not subject to the Paperwork Reduction Act, 42 U.S.C. § 3501 et seq., because it seeks collection of information by an agency from specific individuals or entities as part of an administrative action or investigation.

27. USEPA and Ohio EPA may use any information submitted under this MOA in an administrative, civil, or criminal action.

28. This MOA is effective on the date of receipt of the MOA by AEP following signature by the Regional Administrator, USEPA, Region 5, and following signature by the Director of Ohio EPA. This MOA will expire three years from its effective date.

29. Notices or other communications required by this MOA to be delivered in writing will be directed to the following persons:

For AEP:

Mark A. Gray  
Manager, Environmental Services  
American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, OH 43215  
Fax: (614) 223-1252

and

Gregory W. Massey  
General Manager  
General James M. Gavin Power Plant  
7397 N. State Route 7  
Cheshire, OH 45620  
Fax: (740) 925-3103

For USEPA:

George Czerniak and Kathy Triantafillou  
USEPA Region 5  
AE-17J  
77 West Jackson Boulevard  
Chicago, IL 60604  
Fax: (312) 353-8289

For Ohio EPA:

Kay Gilmer and Dean Ponchak  
Ohio EPA  
Southeast District Office  
2195 Front Street  
Logan, Oh 43138  
Fax: (740) 385-6490

The Parties may designate other individuals to receive the notices and communications required by this MOA by providing notice of the new contact person's name, address,

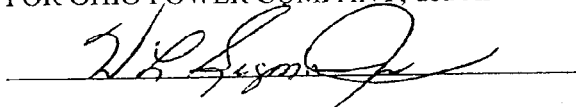
telephone and fax numbers in writing to all other Parties. Notices and other written communications required by this MOA may be delivered by overnight mail or by facsimile transmission, and will be considered "submitted" when delivered to the overnight delivery service or transmitted by facsimile, and "received" on the first business day after being delivered to the overnight mail service or transmitted by facsimile, unless a demonstrated failure of delivery occurs.

30. Nothing in this MOA shall be considered an admission of violation of or liability under any provision of the Clean Air Act or the Ohio State Implementation Plan or any other local, state or federal laws or regulations. This MOA is not admissible in any proceeding for any purpose, except in an action to enforce the terms herein.

31. This MOA does not restrict AEP's ability to raise any defense in any pending or subsequent enforcement proceeding.

32. This MOA may be modified only in writing signed by all Parties.

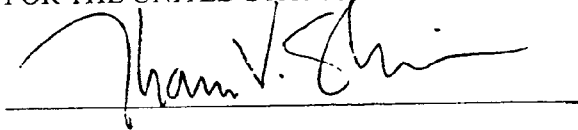
FOR OHIO POWER COMPANY, dba AMERICAN ELECTRIC POWER



Title: Senior Vice President Unregulated Power Generation

Date: 5/1/02

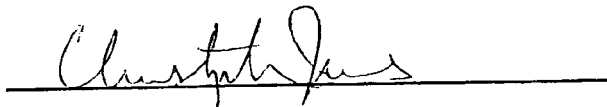
FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



Regional Administrator of Region 5

Date: 5.6.02

FOR THE OHIO ENVIRONMENTAL PROTECTION AGENCY



Director of Ohio Environmental Protection Agency

Date: 5-1-02